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Background

1986	B. Sc.	Kyoto University, Faculty of Science
1988	M.Sc.	Kyoto University, Faculty of Science
1991	Ph.D.	Kyoto University, Faculty of Science

1990-1992	Assistant Professor, Faculty of Science, Osaka City Univ.
1992-2003	Assistant Professor, Graduate School of Arts and Sciences, Univ. of Tokyo
2003-2004	Associate Professor, Research Institute of Bioresources, Okayama Univ.
2004-2011	Associate Professor, Graduate School of Agricultural and Life Sciences, Univ. of Tokyo
2011-2017	Associate professor, Biotechnology Research Center, Univ. of Tokyo
2017-Present	Professor, Biotechnology Research Center, Univ. of Tokyo

1990	JSPS Research Fellowship for Young Scientists (DC)
1996	Visiting Scholar, Harvard Univ./ MGH, Supported by Japan-US cooperative Photoconversion and Photosynthesis Research Program
1999-2000	Visiting Scholar, UCSD, Supported by Monbusho Fellowship program for Japanese Scholars and Researchers to study Abroad by the Ministry of Education, Science and Culture, Japan
2001	Visiting Scholar, Harvard Univ./MGH

2003 Award for Young Scientists by the Japanese Society of Plant Physiologists

Research

As autotrophs, plants can biosynthesize all biological substances necessary for growth, with atmospheric carbon dioxide and inorganic compounds taken up from soils that include nitrate. We aim to reveal molecular mechanisms that control systems producing biological substances. As transcription factors unique to plants are intimately associated with regulations of the systems, we particularly focus on such transcription factors. We discovered the Dof family that are a group of transcription factors unique to plants and identified the transcription factors that function as master regulators for nitrate response in plants.

Key papers

Publications & Citations (Google Scholar)

1. Liu KH, Niu Y, Konishi M, Wu Y, Du H, Chung HS, Li L, Boudsocq M, McCormack M, Maekawa S, Ishida T, Zhang C, Shokat K, Yanagisawa S and Sheen J (2017) "Discovery of Nitrate-CPK-NLP signalling in central nutrient-growth networks." **Nature** 545: 311-316.
2. Yanagisawa S (2015) "Structure and evolution of the plant Dof transcription factor family" in **Plant Transcription Factors. Evolutionary, Structural and Functional Aspects**" (Daniel H. Gonzalez, ed.), Elsevier/Academic Press.
3. Konishi M and Yanagisawa S (2013) "Arabidopsis NIN-like transcription factors play a central role in nitrate signalling." **Nat. Commun.** 4: 1617.
4. Negi J, Moriwaki K, Konishi M, Yokoyama R, Nakano T, Kusumi K, Hashimoto-Sugimoto M, Schroeder JI, Nishitani K, Yanagisawa S and Iba K (2013) "A Dof transcription factor, SCAP1, is essential for the development of functional stomata in Arabidopsis". **Curr. Biol.** 23: 479-484.
5. Takahara T, Tasic B, Maniatis T, Akanuma H and Yanagisawa S (2005) "A delay in the synthesis of the 3' splice site promotes *trans*-splicing of the preceding 5' splice site." **Mol. Cell** 18: 245-251.
6. Yanagisawa S, Akiyama A, Kisaka H, Uchimiya H and Miwa T (2004) "Metabolic engineering with Dof1 transcription factor in plants: Improved nitrogen assimilation and growth under low nitrogen conditions." **Proc. Natl. Acad. Sci. USA** 101: 7833-7838.
7. Gagne JM, Smalle J, Gingerich DJ, Walker JM, Yoo S-D, Yanagisawa S and Vierstra RD (2004) "*Arabidopsis* EIN3-binding F-box 1 and 2 form ubiquitin-protein ligases that repress ethylene action and promote growth by directing EIN3 degradation." **Proc. Natl. Acad. Sci. USA** 101: 6803-6808.
8. Potuschak T, Lechner E, Parmentier Y, Yanagisawa S, Grava S, Koncz C and Genschik P (2003) "EIN3-dependent regulation of plant ethylene hormone signaling by two Arabidopsis F-box proteins: EBF1 and EBF2." **Cell** 115: 679-689.
9. Yanagisawa S, Yoo S-D and Sheen J (2003) Differential regulation of EIN3 stability by glucose and ethylene signalling in plants." **Nature** 425: 521-525.
10. Yanagisawa S (2002) "The Dof family of plant transcription factors." **Trends Plant Sci.** 7: 555-560.